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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

EXS-15-74
3 June 1974

MEMORANDUM FOR: Dr. Oswald H. Ganley
Executive Secretary, US-USSR Programs Secretariat
Bureau of International Scientific and Technological
Affairs
Department of State

SUBJECT : IIAGE Comments on Electrometallurgy

File attached

REF : Dr. Oswald H. Ganley Memorandum to
Subject: IIAGE Comments on Electrometallurgy, dated
22 May 1974

1. While we trust that the Chairman of the Electrometallurgy Working Group is correct, that significant US technology is not likely to be lost to the Soviets through individual commercial agreement with American industry, the Interagency Intelligence Advisory Group on Exchanges (IIAGE) comments, in its 6 March 1974 memorandum to the Department of State, simply reflected the views of much of the US Intelligence Community (IC) that such an eventuality was possible. Differences of opinion regarding US technological loss were discussed at the recent proceedings of the Intelligence Advisory Group on Exchanges, (IGE) an ad hoc committee of the United States Intelligence Board (USIB), without a clear resolution.

2. We are pleased to note the great interest of the Working Group in weldable one percent nitrogen stainless steel, and trust the US intelligence needs will be given full consideration, should the Group obtain a sample of this material during their visit to the USSR.

3. The IIAGE was misinformed concerning the relationship of the Electrometallurgy Group to the National Science Foundation (NSF), but we are grateful for the Executive Secretariat's offer to provide working group and project reports to the US Intelligence Community.

4. The IIAGE did not intend that the subject areas outlined in its 6 March 1974 memorandum be construed as "Intelligence Collection Requirements" by either the Secretariat or individual scientists of the Electrometallurgy Group. These subject areas were suggested as aids and as legitimate areas of concern for the Working Group. They were provided by the US Intelligence Community, through the Department of State, as directed by DCID 2/6, 25 July 1963:

APPROVED FOR RELEASE
DATE: JUN 2004

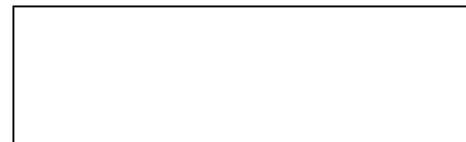
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"Advise the Soviet and East European Exchanges Staff, Department of State, on all intelligence aspects related to exchanges, exclusive of internal security; assess the probable net advantages from an intelligence standpoint, considering both intelligence and technological gains or losses; and make recommendations on itineraries and other details necessary for effective intelligence exploitation in line with the Priority National Intelligence Objectives."

5. We are pleased that the IIAGE memorandum of 20 March 1974 to the Department of State provided support for the Working Group Chairman, and we shall endeavor to continue such support in all future requests levied by the Department of State in such matters.



Deputy Chairman
Ad Hoc Intelligence Advisory
Group on Exchanges (IGE)

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BUREAU OF INTERNATIONAL SCIENTIFIC
AND TECHNOLOGICAL AFFAIRS

U.S.-U.S.S.R. Programs Secretariat

May 22, 1974

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MEMORANDUM FOR:

Deputy Chairman
Ad Hoc Intelligence Advisory
Group on Exchanges

SUBJECT: IIAGE Comments on Electrometallurgy

I. Memorandum - March 6, 1974

The Working Group Chairman of the Electrometallurgy Group maintains informal contacts and liaison with American industry. He does not believe it to be likely that significant US technology will be lost to the Soviets through that channel.

The US Working Group has great interest in a weldable one percent nitrogen stainless steel as described in your memorandum. The US Group hopes to get a sample and will pressure the Soviets actively.

Paragraph 3 recommends that the National Science Foundation issue periodic detailed reports on the number of aspects of electrometallurgy of particular interest to the intelligence community. Except for a willingness to fund in the future parts of the electrometallurgy program, NSF is not involved in this program.

The Executive Secretariat will be pleased to continue to provide IGE and others on request with working group and project reports as they may become available, and such other information as may become available in the natural course of cooperation with the Soviets in this field. The Executive Secretariat and the working groups,

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however, are not in the business of intelligence collection, and requirements of this nature should not be levied against the Secretariat and the scientists involved.

II. Memorandum - March 20, 1974

The Working Group Chairman appreciates the comments of [] in his memorandum of March 20. Much of the thinking contained in this memorandum is in line with the Working Group's thoughts. The Working Group will keep the comments in mind as it proceeds.

Oswald H. Ganley
Executive Secretary

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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

EXS-06-74
20 March 1974

MEMORANDUM FOR: Mr. Sol Polansky
Acting Director, Office of Soviet and
Eastern European Exchanges
Department of State

ATTN : Mr. Raymond Pardon


SUBJECT : Electrometallurgy Topic of the US-USSR Cooperative
Agreement in Science and Technology

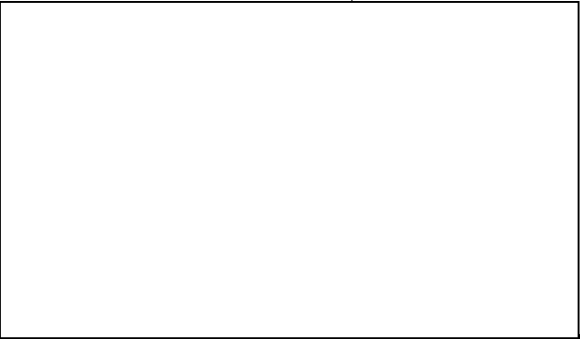
REF : Our Memo, EXS-05-74 dated 6MAR74, Same Subject

1. This memorandum will supplement the previous guidance provided in the referent to the US electrometallurgy delegation. The projected Soviet itinerary in the US appears satisfactory. However, since the Soviet visit has not yet occurred and a comprehensive report on the visit by the US delegation to the USSR is not available, we cannot provide an objective assessment of US and Soviet technological gains from the reciprocal visits.

2. The US delegation's suggestion that the exchange include the evaluation of the engineering properties of electrometallurgical products is excellent. This could provide a much more meaningful exchange if the Soviets are induced to provide adequate materials characterizations including histories.

3. The US could gain quite a bit from the improved recycling of expensive scrap metals. The Soviets have used PAR furnaces and powder metallurgy processing to handle different types of titanium scrap. We should investigate other Soviet materials recycling processes for potential US applications.


Acting Chairman
Interagency Intelligence Advisory
Group on Exchanges



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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

EXS-05-74
6 March 1974

MEMORANDUM FOR: Mr. Sol Polansky
Acting Director, Office of Soviet and
Eastern European Exchanges
Department of State

ATTN : Mr. Raymond Pardon

SUBJECT : Electrometallurgy Topic of the US-USSR Cooperative
Agreement in Science and Technology

REF : Antonov letter to Promisel of 2JAN74 Transmitting
Soviet Draft Work Programs

1. It is the opinion of the members of the IIAGE that the Electrometallurgy Cooperative Agreement with the USSR is developing quite well. We feel that the US Working Group is attempting to get as much technology from the Soviets as the Soviets will receive from their US counterparts. However, we are concerned about US industry--Soviet agreements outside the purview of the US working groups. Through such channels the US could lose a significant amount of information.

2. One of the most intriguing Soviet claims is their production of a weldable one percent nitrogen stainless steel with resistance to corrosion, high toughness and strength levels between 200 and 350 Ksi. However, the only sample obtained by the US has less than one half percent nitrogen, and the Soviets have been inquiring recently about how best to heat treat and weld this material.

3. We recommend that the National Science Foundation issue periodic detailed reports, incorporating the observations and impressions of the working group members and other US scientists who become involved in the working group visits. We hope that such reports, and the US working group in its future negotiations would address, among other interests, the following areas:

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**SUBJECT: Electrometallurgy Topic of the US-USSR Cooperative Agreement
in Science and Technology**

- A. The effect on hardware development of the large Soviet commitment in welding R&D and education.
- B. What we can expect in future welding/joining developments.
- C. Exact composition of ESR fluxes for titanium.
- D. Quality of plasma guns for PAR compared to US (Linde) and/or Japanese guns.
- E. Status of plasma welding and melting technology at IMET relative to IES.

[Redacted]
Acting Chairman

Interagency Intelligence Advisory
Group on Exchanges

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